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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/658,561	09/08/2003	Jyshyang Chen	O2MICRO 02.20	3263

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MANCHESTER, NH 03101

EXAMINER

PATEL, NIRAV B

ART UNIT PAPER NUMBER

2135

DATE MAILED: 12/01/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>		<b>Applicant(s)</b>	
	10/658,561		CHEN, JYSHYANG	
	<b>Examiner</b>		<b>Art Unit</b>	
	Nirav Patel		2135	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 08 September 2003.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 January 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>5/18/05</u> .   | 6) <input type="checkbox"/> Other: _____                          |

### **DETAILED ACTION**

1. This action is in response to the application filed on 9/8/03.
2. Claims 1-17 are under examination.

### **Claim Objections**

3. Claim 2 is objected to because of the following informalities:

Claim 2 contains the phrase "between said LAN and said LAN", which is treated as typographical error and the correct phrase should be "between said WAN and said LAN"

### **Claim Rejections - 35 USC § 103**

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-4, 7-11, 14 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Vairavan (US Pub. No. 2002/0083344) and in view of Kim (US Pub. No. 2002/0069356).

As per claim 1, Vairavan discloses:

at least one wide area network (WAN); at least one local area network (LAN) [Fig. 1, paragraph 0047, 0048]; and an integrated firewall/VPN chipset adapted to send and

receive data packets between said WAN and said LAN [Fig. 1, component 110], said chipset comprising a firewall portion and to provide access control between said WAN and said LAN [Fig. 2, 3, paragraph 0086, 0087 lines 1-2] and a VPN portion adapted to provide security functions for data between said LAN and said WAN [Fig. 2-4, paragraph 0108, 0109, 0135 lines 1-4]; wherein at least said firewall hardware portion is adapted to provide iterative functions associated with said access control [Fig. 2-3, → packet processor/firewall module, paragraph 0086]; wherein at least VPN hardware portion is adapted to provide iterative functions associated with said security functions [Fig. 2,4 → security processor/encryption-decryption module, paragraph 0109].

Vairavan doesn't expressively mention hardware and software portions.

Kim teaches the integrated firewall/VPN chipset adapted to send and receive data packets between internal network and external network [Fig. 4, 5, 6, paragraph 0016 lines 3-5]; wherein the firewall/VPN including firewall/VPN hardware and software portions [Fig. 5-6, paragraph 0051].

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine Kim with Vairavan, since one would have been motivated to provide an integrated security gateway for integrating virtual private networking and firewall functions [Kim, paragraph 0014].

As per claim 2, the rejection of claim 1 is incorporated and Vairavan discloses:

said chipset further comprises a router adapted to route data between said WAN and said LAN [Fig. 1, 2, paragraph 0058, 0122, 0139 lines 1-4].

As per claim 3, the rejection of claim 1 is incorporated and Vairavan teaches the routing table supports the static and/or dynamic IP addressing [paragraph 0124 lines 6-7].

Kim teaches:

said firewall hardware portion comprising circuitry to provide static and/or dynamic data packet filtering [paragraph 0031 lines 5-8].

As per claim 4, the rejection of claim 3 is incorporated and Vairavan discloses:

said circuitry includes a header match packet filtering circuit to provide pattern matching in selected headers of said data [paragraph 0074].

As per claim 7, the rejection of claim 1 is incorporated and Vairavan discloses:

said VPN security functions comprise, encryption, decryption, encapsulation, and decapsulation of said data packets [paragraph 0109, 0112].

As per claim 8, the rejection of claim 1 is incorporated and Kim discloses:

said firewall access control functions comprise user-defined access control protocols [paragraph 0034, 0041].

As per claim 9, it encompasses limitations that are similar to limitations of claims 1 and

2. Thus, it is rejected with the same rationale applied against claims 1 and 2 above.

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As per claim 10, the rejection of claim 9 is incorporated and it encompasses limitations that are similar to limitations of claim 3. Thus, it is rejected for the same reason set forth in the rejection of claim 3 above.

As per claim 11, the rejection of claim 10 is incorporated and it encompasses limitations that are similar to limitations of claim 4. Thus, it is rejected for the same reason set forth in the rejection of claim 4 above.

As per claim 14, the rejection of claim 9 is incorporated and it encompasses limitations that are similar to limitations of claim 7. Thus, it is rejected for the same reason set forth in the rejection of claim 7 above.

As per claim 15, the rejection of claim 9 is incorporated and it encompasses limitations that are similar to limitations of claim 8. Thus, it is rejected for the same reason set forth in the rejection of claim 8 above.

5. Claims 5, 6, 12 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Vairavan (US Pub. No. 2002/0083344) and in view of Kim (US Pub. No. 2002/0069356) and in view of Krishna et al (US Patent No. 6,477,646).

As per claim 5, the rejection of claim 1 is incorporated and Vairavan discloses the chipset further adapted to analyze access control functions [0086, 0132].

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Vairavan doesn't expressively mention preselected bytes of the data packets.

Krishna teaches a security chip to incorporate both encryption and authentication functionality in a signal chip [Fig. 2, 4]. Further, Kim teaches processing the packet based on preselected bytes of the data packet [col. 3 lines 64-67, col. 4 lines 1-2, col. 5 lines 38-50].

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine Krishna with Vairavan and Kim, since one would have been motivated to improve the performance improvement [Krishna, col. 2 lines 26-27].

As per claim 6, the rejection of claim 5 is incorporated and Krishna teaches:

said preselected bytes comprise the first 144 bytes of said data packet [col. 4 lines 1-2, col. 6 lines 28-32].

As per claim 12, the rejection of claim 9 is incorporated and it encompasses limitations that are similar to limitations of claim 5. Thus, it is rejected for the same reason set forth in the rejection of claim 5 above.

As per claim 13, the rejection of claim 12 is incorporated and it encompasses limitations that are similar to limitations of claim 6. Thus, it is rejected for the same reason set forth in the rejection of claim 6 above.

6. Claims 16 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kim (US Pub. No. 2002/0069356) and in view of Krishna et al (US Patent No. 6,477,646).

As per claim 16, Kim discloses:

defining one or more access control protocols [paragraph 0034, 0041]; receiving a data packet [Fig. 4, paragraph 0016 lines 2-5]; processing said selected bytes using said access control protocols [Fig. 7A, 6, 0046].

Krishna teaches a security chip to incorporate both encryption and authentication functionality in a signal chip [Fig. 2, 4]. Further, Kim teaches selecting a certain number of bytes of said data packet; processing said selected bytes of said data packet [col. 3 lines 64-67, col. 4 lines 1-2, col. 5 lines 38-50].

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine Krishna with Kim, since one would have been motivated to improve the performance improvement [Krishna, col. 2 lines 26-27].

As per claim 17, the rejection of claim 16 is incorporated and Kim teaches:

providing hardware implementation of static and/or dynamic data packet filtering using said access control protocols [paragraph 0031 lines 5-8, Fig. 5, 6].



### **Conclusion**

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Shapira et al (US 7107464) – Virtual private network mechanism incorporating security association processor

Richard (US 2002/0116644) – Adapter card for wirespeed security treatment of communications traffic

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nirav Patel whose telephone number is 571-272-5936. The examiner can normally be reached on 8 am - 4:30 pm (M-F).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kim Vu can be reached on 571-272-3859. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

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USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

*NBP*

*11/21/06*



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